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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/732,530 | 12/08/2000 | Flavio M. Manduley | F-157 | 4426 |

919 7590 01/14/2005

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EXAMINER

COSIMANO, EDWARD R

ART UNIT PAPER NUMBER

3629

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,530

Applicant(s)

MANDULEY, FLAVIO M.

Examiner

Edward R. Cosimano

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/8/000.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Applicant should note the changes to patent practice and procedure:
 - A) effective December 01, 1997 as published in the Federal Register, Vol 62, No. 197, Friday October 10, 1997;
 - B) effective November 07, 2000 as published in the Federal Register, Vol 65, No. 54603, September 08, 2000; and
 - C) Amendment in revised format, Vol. 1267 of the Official Gazette published February 25, 2003.
2. The drawings filed 02 March 2001 are objected to because
 - A) the following errors have been noted in the drawings:
 - (1) the drawing lack "latching device 148" as can be seen in figs. 5a & 5b, from the context of at line 9, of the paragraph located between page 8, line 10, and page 9, line 16, "An exemplary design ... latching device 144, which is capable of stopping gear 146 from moving when latching device 148 is lodged between two of the teeth 148. Upper ... displaced upward, as shown in Figures 5a- 5c.", note the related objection below.
 - (2) the drawings lack figs. 3b, 3c & 3d as can be seen in figs. 6a through 6g and from the context of the paragraph located between page 9, line 17, and page 10, line 14, "Figures 6a - 6f are ... time sequence 304, as shown in Figure 3b. At the ... time sequence 306 between t_1 and t_2 , as shown in Figure 3c. When ... time sequence 308 of Figure 3d, is provided ... edge at t_{n+2} on time sequence 302.", note the related objection below.
 - (3) the drawings are objected to as failing to comply with 37 CFR § 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description, note:
 - (a) reference legend 216 of fig. 7, as this feature is described in the paragraph located at page 10, lines 15-27, "The method of synchronizing the print speed of a digital print head and the relative movement of a substrate is illustrated in flow chart 200 of Figure 7. As shown, the power switch of the postage meter is turned on at step 202.

The user is prompted to feed a substrate and to select or type in data for printing at step 204. . The print head is activated or enabled at step 206 and the movement restraining means is activated at step 208 to restrict the relative movement between the substrate and the print head. The print head starts printing a line at step 210. When the printed line is completed, as shown at step 212, the movement restraining means is deactivated at step 214. If the printed line is not the last line, the sensor activates the movement restraining means at steps 218 after the substrate has moved into a new position for printing the next line. If the printed line is the last line, the user is prompted to feed a new substrate and to specify the data for printing the new substrate.”.

(4) fig. 7 does not depict a one to one correspondence between what is disclosed at lines 9-13 of the as these features are described in the paragraph located at page 10, lines 15-27, “The method of ... step 214. If the printed line is not the last line, the sensor activates the movement restraining means at steps 218 after the substrate has moved into a new position for printing the next line. If the printed line is the last line, the user is prompted to feed a new substrate and to specify the data for printing the new substrate.”, since fig. 7 does not depict either:

- (a) the activation of the moving restraining means after box 218;
- or
- (b) step 218 as an activation of the moving restraining means, since this box is entitled “NEXT POSITION”; or
- (c) the implied flow between the depicted boxes as indicated in the context of the disclosure, that is if the inquiry of box 218 is “YES”, then the flow should pass to box 208 and not 210 as indicated in fig. 7.

2.1 Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

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even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The disclosure is objected to because of the following informalities:

A) as required by 37 CFR § 1.84(p(5)) and 37 CFR § 1.121(e) the specification lacks an explicit reference to the nature of:

(1) reference legend(s):

(a) 216 of fig. 7 as this feature is described in the paragraph located at page 10, lines 15-27, "The method of synchronizing the print speed of a digital print head and the relative movement of a substrate is illustrated in flow chart 200 of Figure 7. As shown, the power switch of the postage meter is turned on at step 202. The user is prompted to feed a substrate and to select or type in data for printing at step 204. . The print head is activated or enabled at step 206 and the movement restraining means is activated at step 208 to restrict the relative movement between the substrate and the print head. The print head starts printing a line at step 210. When the printed line is completed, as shown at step 212, the movement restraining means is de-activated at step 214. If the printed line is not the last line, the sensor activates the movement restraining means at steps 218 after the substrate has moved into a new position for printing the next line. If the printed line is the last line, the

user is prompted to feed a new substrate and to specify the data for printing the new substrate.”; and

(2) how the program proceeds after box(es):

(a) 212 & 218 of fig. 7 if the inquiry is "NO", as these features are described in the paragraph located at page 10, lines 15-27, “The method of synchronizing the print speed of a digital print head and the relative movement of a substrate is illustrated in flow chart 200 of Figure 7. As shown, the power switch of the postage meter is turned on at step 202. The user is prompted to feed a substrate and to select or type in data for printing at step 204. . The print head is activated or enabled at step 206 and the movement restraining means is activated at step 208 to restrict the relative movement between the substrate and the print head. The print head starts printing a line at step 210. When the printed line is completed, as shown at step 212, the movement restraining means is deactivated at step 214. If the printed line is not the last line, the sensor activates the movement restraining means at steps 218 after the substrate has moved into a new position for printing the next line. If the printed line is the last line, the user is prompted to feed a new substrate and to specify the data for printing the new substrate.”; and

(b) 216 & 218 of fig. 7 if the inquiry is "YES", as these features are described in the paragraph located at page 10, lines 15-27, “The method of synchronizing the print speed of a digital print head and the relative movement of a substrate is illustrated in flow chart 200 of Figure 7. As shown, the power switch of the postage meter is turned on at step 202. The user is prompted to feed a substrate and to select or type in data for printing at step 204. . The print head is activated or enabled at step 206 and the movement restraining means is activated at step 208 to restrict the relative movement between the substrate and the print head. The print head starts printing a line at step 210. When the printed line is

completed, as shown at step 212, the movement restraining means is deactivated at step 214. If the printed line is not the last line, the sensor activates the movement restraining means at steps 218 after the substrate has moved into a new position for printing the next line. If the printed line is the last line, the user is prompted to feed a new substrate and to specify the data for printing the new substrate.”.

In this regard, it is noted that merely mentioning either a feature or a number without mentioning the device or operation or number or feature relies on the drawing to provide support for the disclosure and not to aid in the understanding of the invention, as is the purpose of the drawings (37 CFR § 1.81(a,b)).

B) the following errors have been noted in the specification:

(1) as can be seen in figs. 5a & 5b, at line 9, of the paragraph located between page 8, line 10, and page 9, line 16, “An exemplary design of the manually activated postage meter is shown in Figures 5a to 5d. As shown in Figures 5a and 5b, postage meter 130 has frame 134 for fixedly mounting upper body 140, and movably mounting lower body 160 so as to allow lower body 160 to move relative to upper body 140 along direction 110. Upper body 140 includes control box 142 for housing a plurality of components, which are not shown, including print head 2, print head control 4, movement restraining means 6, and sensor 8. Movement restraining means 6 is operatively engaged with latching device 144, which is capable of stopping gear 146 from moving when latching device ~~[[148]]~~ 144 is lodged between two of the teeth 148. Upper body 140 has plate 150, which is connected to a locking mechanism 154, for fixedly mounting to frame 134. Plate 150 also has restricting end piece 152. The lower body 160 has inner wall 162 movably mounted to frame 134 for linear motion along direction 110. Lower body 160 further includes lower frame 170, which is fixedly mounted to inner wall 162, and upper plate 164 extended from inner wall 162. Lower frame 170 includes a number of shafts 172 for rotatably mounting plurality of roller supports 174. Number of rollers 176 are rotatably

mounted on roller supports 174. Rollers 176 allow substrate 100 to be fed into lower body 160 between upper plate 164 and rollers 176, as shown in Figure 5c. Upper plate 164 also has end structure 168 fixedly mounted thereon. End block 165 has vertical wall 166 to serve as a registration wall, which stops substrate 100 when substrate 110 is fed into lower body 160 for printing. As shown in Figure 5a, upper plate 164 has opening 180, allowing print head 2 (not shown) inside control box 142 to print indicium 80 or other image or text on substrate 100. Once substrate 100 is properly fed into lower body 160, the user can move lower body 160 along with substrate 100 along direction 110 for printing. Preferably, roller supports 174 are spring-loaded to provide an upward urging force against substrate 100 for securing substrate 100 between upper plate 164 and rollers 174. The user can push lower body 160 using end structure 168 for moving lower body 160. After the printing is completed, lower body 160 is moved over a certain distance along direction 110, as shown in Figure 5d. Preferably, end block 165 is movably mounted on end structure 168. When the printing is completed, the end block can be moved upward so that substrate 100 can be retrieved from the front end of lower body 160. However, before the printing is completed, restricting end piece 152 prevents end block 165 from being completely displaced upward, as shown in Figures 5a- 5c.”, the phrase “latching device 148” should be –latching device 144–, not also the reference to “latching device 144” at line 8 of this paragraph.

(2) as can be seen in figs. 6a through 6g and from the context of the paragraph located between page 9, line 17, and page 10, line 14, “Figures 6a - 6f are timing diagrams illustrating the time relationship between the print head, the print-head control, the movement restraining means and the sensor in a postage meter, with reference to time axis T, as shown in Figure 6g. As shown in Figure 6a, timing sequence 302 represents the print signal of the postage meter. The printing signal enables the print head at $t=t_0$ after a substrate is properly fed into the postage meter (see Figure 5c, for example). From t_0 to t_2 ,

the print head prints a line on the substrate, as represented by the first pulse on time sequence 304, as shown in Figure [[3b]] 6b. At the end of the line, the print head control conveys a signal to the movement restraining means, as indicated by the first pulse in time sequence 306 between t_1 and t_2 , as shown in Figure [[3c]] 6c. When print head 2 is printing, the movement restraining means is activated, as indicated by the first pulse on time sequence 310 starting at $t=t_0$, as shown in Figure 6e. The movement restraining means is deactivated at t_2 . Once the movement restraining means is deactivated, the substrate is allowed to move relative to the print head by a distance substantially equal to the width of a printed line. By then, the sensor activates the movement restraining means, as indicated by the first pulse on time sequence 312 between t_3 and t_4 , as shown in Figure 6f. Subsequently, the print head prints a new line starting at t_4 , as shown in time sequence 304. The print cycle repeats until the last line is printed. The last line is printed by the print head from t_n to t_{n+2} , as shown on time sequence 304. A last line signal, as shown in time sequence 308 of Figure [[3d]] 6d, is provided to override the end of line signal (time sequence 306) between t_{n+1} and t_{n+2} . The movement restraining means is not activated again after the last line is printed. The system is reset after a new substrate is fed into the postage meter for printing. The last line signal puts an end to the printing process, as indicated by the negative-going edge at t_{n+2} on time sequence 302.”, at:

- (1) line 8 of this paragraph “3b” should be -6b--;
- (2) line 11 of this paragraph “3c” should be -6c--; and
- (3) line 22 of this paragraph “3d” should be -6d--.

Appropriate correction is required.

4. The specification and drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification or drawings. Applicant should note the requirements of 37 CFR § 1.74, § 1.75, § 1.84(o,p(5)), § 1.121(a)-1.121(f) & § 1.121(h)-1.121(i).

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.1 Claims 1-3, 12-17 & 23-27 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by either Belson et al (3,644,806) or Riley (3,917,048) or Kondo (4,971,466).

5.1.1 In regard to claims 1-3, 12-17 & 23-27, either Belson et al ('806) or Riley ('048) or Kondo ('466) disclose a digital printing system/method in which a mechanism engages/holds the substrate while a digital print head prints one or more characters/symbols by printing as a series of rows/columns of dots. In these systems, after each row/column of dots is printed on the substrate, the engaging/holding mechanism disengages/releases the substrate and the substrate is appropriated moved/advanced relative to the printhead by a predetermined distance as indicated by an appropriate signal from a sensor. After the signal indicates that the substrate has been moved the predetermined distance of at least the width of a row/column of dots, the engaging/holding mechanism once again is applied to the substrate so as to prevent the substrate from moving while the next column/row of dots is being printed. This process is repeated until the control system indicates that all of the row/columns of dots that form all the characters/symbols to be printed on the substrate have been printed on the substrate.

5.2 Claims 5 & 6 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by either Riley (3,917,048) or Kondo (4,971,466).

5.2.1 In regard to claims 5 & 6, either Riley ('048) or Kondo ('466) that the advancement means is a roller and the holding mechanism includes a latch which engages the teeth of a gear connected to the advancement means.

6. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between

the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(c) Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

6.1 Claims 4, 7-11, 17-22 & 28-35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either Belson et al (3,644,806) or Riley (3,917,048) or Kondo (4,971,466) as applied to claims 1-3, 12-17 & 23-27 above and further in view of obvious modifications.

6.1.1 In regard to the type of sensor as recited in claim 4, since the systems of either Belson et al ('806) or Riley ('048) or Kondo ('466) require the use of some type of means to detect or sense the position and movement of the substrate, it would have been obvious to one of ordinary skill at any suitable method of detecting/sensing the position/movement of the substrate could be used absent applicant's showing of new and unexpected results from using a particular type of sensor to detect/sense the position/movement of the substrate.

6.1.2 In regard to the type of system that uses the printer as recited in claims 7-9, 18-22, 28, 34 & 35, since there are many different systems that use printers and the systems of either Belson et al ('806) or Riley ('048) or Kondo ('466) describe a printer that could be used to print any data/information on a substrate, it would have been obvious to one of ordinary skill at any suitable system/device/method that could control the printer of either Belson et al ('806) or Riley ('048) or Kondo ('466) could use the printer of either Belson et al ('806) or Riley ('048) or Kondo ('466) absent applicant's showing of new and unexpected results from using a particular type of system with the printer of either Belson et al ('806) or Riley ('048) or Kondo ('466).

6.1.3 In regard to the type method/system used to provide relative movement between the printhead and substrate as recited in claims 10 & 11, since the systems of either Belson et al

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('806) or Riley ('048) or Kondo ('466) require a relative movement between the printhead and the substrate, it would have been obvious to one of ordinary skill at any suitable system/device/method that would provide the required relative movement between the printhead and substrate could be used absent applicant's showing of new and unexpected results from using a particular type of system/device/method that would provide the required relative movement between the printhead and substrate. Note that the Court has held that manual activity is equivalent to automatic activity when the end result is the same, for as the Court has stated it is not invention to broadly replace manual activity with an automatic activity that accomplishes the same result, (In re Venner and Bowser, 120 U.S.P.Q. 192 @ 194 (CCPA, 1958)).

6.1.4 In regard to the type substrate as recited in claims 29 & 30, since the systems of either Belson et al ('806) or Riley ('048) or Kondo ('466) require a substrate to receive the information to be printed, it would have been obvious to one of ordinary skill at any suitable type of substrate that could receive the information to be printed could be used absent applicant's showing of new and unexpected results from using a particular type of substrate to receive the information to be printed.

6.1.5 In regard to the nature of the information that is printed on the substrate as recited in claims 31-33, since the systems of either Belson et al ('806) or Riley ('048) or Kondo ('466) require information to be printed on a substrate, it would have been obvious to one of ordinary skill at any suitable type of information to be printed on the substrate could be used absent applicant's showing of new and unexpected results from using a particular type of information that is to be printed on the substrate.

7. 35 U.S.C. § 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

7.1 Claims 1-35 are rejected under 35 U.S.C. § 101 because the invention as claimed is directed to non-statutory subject matter, since:

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A) in regard to claims 1-3, 5, 6, 12-17 & 23-27, these claims fail to comply with the "requirements this title, namely 35 U.S.C. § 102 as set forth below.

B) in regard to claims 4, 7-11, 17-22 & 28-35, these claims fail to comply with the "requirements this title, namely 35 U.S.C. § 103 as set forth below.

8. The examiner has cited prior art of interest, for example:

A) either Numata (JP 58-42482) or Gilham (EP 0298775 or 5,122,967 or 5,408,416) or Kajimoto (4,872,119) or Guenther (5,608,636) disclose systems in which a valuable indicia, for example a postage indicia or ticket, is printed in a row by row or column by column manner until the complete indicia has been printed.

B) Costlow discloses that streaking, flaring and stretching may be reduced by using a vacuum to hold the substrate to the device/system that transports the substrate.

9. The shortened statutory period of response is set to expire 3 (three) months from the mailing date of this Office action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Cosimano whose telephone number is (703) 305-9783. The examiner can normally be reached Monday through Thursday from 7:30am to 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss, can be reached on (703)-308-2702. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1113.

10.1 The fax phone number for UNOFFICIAL/DRAFT FAXES is (703) 746-7240.

10.2 The fax phone number for OFFICIAL FAXES is (703) 872-9306.

10.3 The fax phone number for AFTER FINAL FAXES is (703) 872-9306.

01/11/05



Edward R. Cosimano
Primary Examiner A.U. 3629